

Patent [19]

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[54] PHOTOCATALYST CLEANING UNIT AND AIR CLEANING MACHINE AS WELL AS
LIGHT EMITTING DIODE

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[51] Int. Cl.⁷ A61L00900; A61L00920; B01D05386; F24F00700; H01L03300[57] **ABSTRACT**

PROBLEM TO BE SOLVED: To provide a photocatalyst cleaning unit which is capable of increasing an area of a photocatalyst carrier surface and is capable of further enhancing a cleaning effect by enhancing the irradiation efficiency of UV rays and an air cleaning machine using the same as well as a light emitting diode for the photocatalyst cleaning unit.

SOLUTION: The photocatalyst cleaning unit disposed with a UV light source 13 within the vent pipes 11 of a photocatalyst carrier 8 juxtaposed with a multiplicity of the vent pipes 11 is formed. Further, the light emitting diode as the UV light source 13 including a reflecting means 12 is used as the UV light source 13 adequate for the photocatalyst cleaning unit 5. The area ratio occupied by a photocatalyst exciting material 10 may be increased with respect to the surface area occupied by the carrier 8 and the photocatalyst exciting material 10 may be efficiently irradiated with UV rays by the UV light source 13 disposed within the vent pipes 11.

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